T Y 757 278 the sap was chewed for a cold, but it was extremely bitter. The interpreter, S.G., bit off a little piece of tanal in my presence, made an excruciating face, spat it out, and said he "guessed he'd wait till he had a bad cold."

T Y 616 Moiety.--The words Nutuwich and Tokelyuwich greatly puzzled F.M., who said he had never heard about those people "and guessed those tribes were all gone." A description of the moiety as it functions amongst northern and lake Yokuts tribes merely elicited the statement that "people down here didn't act that way."

CEREMONIES

T Y 796 Snake ritual.--This F.M. has seen at Tule, but it was not made at Sototlo.

Bear Dance.--This was "never done down this way; they had it up toward Kaweah River."

Huhuna Dance.--This was not seen until after F.M. had settled at Tule, where it was introduced by people from the north.

T Y 756 Shamans' Contest.--There were not enough doctors at Sototlo for contests to be held, but these were given later at Tule where Poi'in, the woman shaman, participated.

T Y 796 237 Eagle purchase.--A man who killed an eagle would go from house to house, and at each he would be given a bit of money. Then he went to the chief who gave him a larger sum of money and received the carcass. Then the chief called the people together. After removing the skin and shinbones, they buried the carcass with some ceremony; money was always placed with it. An old man would get up and make a speech.[139] There was a tabu on meat for three days after the ceremony.

T Y [435] Eagle down, thus obtained by the chief, was sold by him. The old price was one [double ?] string of disc beads the length of one's arm; later $2.00 per leg was charged. The down was scattered when any act of importance was undertaken. When praying, no matter to whom the prayer was addressed, or when traveling, one sprinkled down on a hilltop or in a gap between two hills. The sanctity of eagle down was evinced by its peculiar ability to "stick anywhere on anything"; it sticks to the fingers, and when cast on the ground it does not blow away.

Jimsonweed Ritual

J 276 796 [757] Jimsonweed (ta'nai) was taken about February; the rite was held every two or three years. Only men took jimsonweed; indulgence was not compulsory; it was taken only once ceremonially, but might be used frequently for medicinal purposes.

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[139] F.M. could not remember what this was about, and said he "couldn't tell it anyway because my language is too short."

224 Deer meat was never sold, always given away. When men provided venison for public gatherings, they were paid for their trouble (services). Doctors, says S.G., were given the best parts.

There are reasons for this respect for deer.

224 In the first world Deer was a quiet man
539 who never went any place, and didn't talk. Then
773 when it was time for the change[168] Eagle said to him, "All your body will be worth something. It isn't everybody who will be able to kill you." The next morning Deer ran out of his house. He made a big cave to live in. The next day there were thousands of deer in there. On the third day three hunters came to kill Deer; they were Cougar, Elk, and Spotted Cat. Coyote came along and interfered; he caught a deer. The deer got mad and all ran away. Finally Cougar succeeded in killing some deer--he is the best hunter.

Now this Deer (mets hoi) lives back in this cave somewhere. Whenever a deer is killed it returns there. The "big" Deer has an arrow which he puts up in the cave. When "the right kind of person kills a deer" (treats it with respect) the arrow remains in place, but if the hunter is careless with his game, the arrow "will fall in less than a month and kill him."[169] A killed deer does not return to this world; the supply of deer continues by natural breeding.

224 Neither cougar nor bear was given any sign of veneration when it was killed, said S.G. Cougar "was a bad one," men who dreamed of him "got too much power." Bear was "not a killer, he only killed when he had to and then killed men."

223 Great respect was shown eagles, in fact,
● 485 only a chief could order one killed. He paid
237 $3.00 to $5.00 for one. A man or woman would be asked to pluck and skin it, and would be paid for the task. The large feathers were plucked off, the down left on the skin which was cased. Nothing of the eagle was ever thrown away; if it were, the hunter would die. The feathers, down, leg bones, and tallow were later sold by the chief to those who wanted them. An eagle leg was said to be worth about $2.50. Feathers having been plucked from it, the down-covered skin of the leg was cased, cleaned, dried, and then made pliable with tallow. In this way it served as a little container from which the down could be pulled as
[534] needed. The bone of the upper leg was made into a whistle. Tallow was used as a salve, and as a binder for face paint.

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[168] Transformation to animals, and coming of human beings, vide Gayton and Newman, abstract 137 and notes.

[171] [169] The Navajo, among other western tribes, believe that a killed deer returns "home" to report on its treatment; if not satisfactory, the hunter is stricken with illness or death (Hill, Agricultural and Hunting Methods, 98).

854 baby and mattress were both lashed to it by means of one set of cords. The cradle frame
335 (with its permanent mat) was called a'hɑ́·lič; the separate mat (mattress), even when the infant slept in it, was still called mat (ṭɑ́·ñi, the usual word for a tule mat). Such a cradle is shown by Kroeber.[203]

If the cradle needed a hood, a broad band of tules, vertically twined about every inch, was fastened on as an addition. Apparently it was not thought of as an integral part of a normal cradle.

[177] The fan-shaped hood and lattice-twined cradle of willow are a recent introduction from the Mono. This information on cradles from M.L., Wukchumni, and M.S., Yaudanchi.)

According to M.L. and K.G. the forked-frame cradle was lathed differently for girls and boys; the boys' cradle had two crosspieces, the girls' but one. The single crosspiece arrangement permitted a bulging of the soft mat so the baby girl's buttocks would not be confined and would grow large. It is to be noted that no such arrangement is made in the recent twined-frame cradles. These, however, carry markings in accordance with the sex of the occupant, zigzag for boys and diamond for girls.

MONEY, NUMERAL SYSTEM

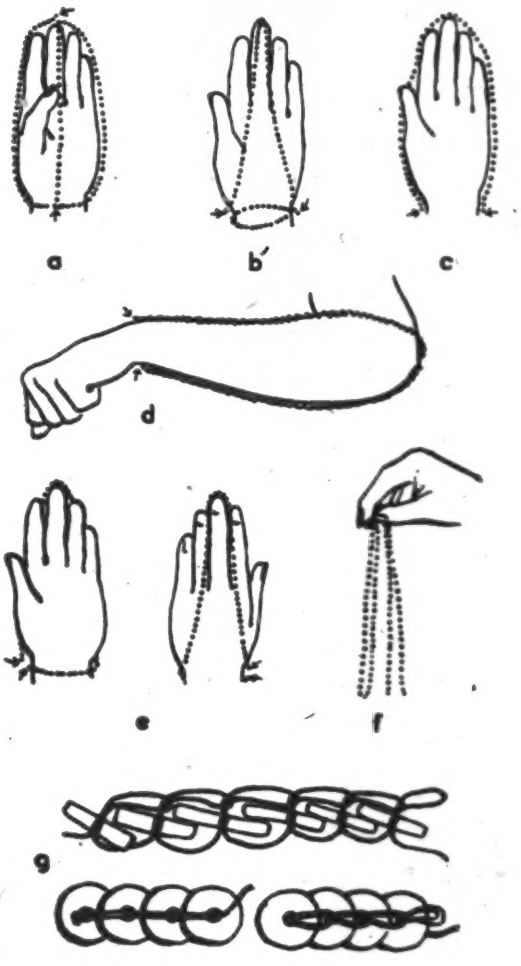
436 The foothill people probably never manufactured money, although the intermediate Gawia would do so when they could obtain the raw material -- unbroken clamshells. A few pieces could be made out of the freshwater oyster shells available at Woodlake and in the slough region, but the greater part of the shell was said to be "too rough." Clamshells and money came from the Chumash, Salinan, and perhaps
[439] Costanoan peoples, passing through the hands of the intervening lake and valley tribes who in turn bought mountain and foothill products -- bows, fire and digging sticks, salt, and fine baskets. The various shell moneys were as follows: home'tɑ·n (humna, humana, pl.), a long tube (1-1/2 to 2-1/2 inches) made from the hinge of large clamshells; koikoi·č, a short tube (1/2-inch) of white, probably also a "hinge" and used in ornamental belts; moco'ko, the small disc of clamshell which, in strings, was the common currency. European beads have
[177] acquired Yokuts names: in Wukchumni, hoi'yo is a small red glass bead;[204] and tedi'diduš is a glass bead with the surface planed to represent cut facets.

436 804 435 The descriptions of the method of measuring strings of clamshell discs and the values

[203] Ibid., pl. 40, m; mattress, pl. 40, m.

[204] Called in English "pomegranate seeds" by M.P.: pomegranate trees are grown abundantly in the Visalia-Lemon Cove district.

436 attached to them differ slightly from in-
804 formant to informant (fig. 14, a, b). The čok,
435 the measurement around the hand, all informants agree, was equivalent to 5 cents. Other values were about as follows: 2-1/2 čok was called hista´'a and equaled 10 cents; 2 hista'a equaled 20 cents. A single strand which reached from the wrist around the elbow and back was valued at $2.00, but a continuously half-hitched strand covering the same distance



[284]

Fig. 14. Bead money measurements. a, b, d, Wukchumni. c, Kechayi. e, f, Waksachi. g, method of half-hitching beads together.

435 436 804 was $5.00 (fig. 14, d). This means half-hitched or "chain-stitch" loops in the already strung length of discs, which nearly tripled the quantity of a plain length from wrist around elbow and back to wrist.[205] A cylindrical bead called humna was worth twenty-five cents.

535 465 The participants and singers in a ritual like the mourning ceremony or an ordinary pleasure dance would be given about 1/2 čok in payment by spectators. There was no fixed amount: if a person really could not afford to give more than a few beads he was not thought miserly. At times of display or for payment of individual performers, as at the death of Huhuna in the Huhuna Dance, long strings of money were thrown down.

556 A definite attempt to accumulate wealth was made by chiefs, shamans, and probably others who hoped to acquire prestige. Even when money was not the medium of exchange, value for value was the expectancy, not, however, with the shrewd, mercenary motivation of receiving, but with the courteous, generous motivation of giving, and maintaining moral status thereby.[206]

436 804 Kroeber, in a general reference to money,[207] states that the unit of measurement in the north was the chok, one and a half times the circumference of the hand. In the south the chok was somewhat shorter, and was reckoned as half the hista, twice the circumference of the hand.

Powers gives a somewhat different evaluation, which may have been the rate of his day.[208]

The usual shell-money is used among them, and a string of it reaching from the point of the middle finger to the elbow is valued at 25 cents. A section of bone [sic], very white and polished, about two and a half inches long, is sometimes strung on the string and rates at twelve and one-half cents.

Numerals

802

1. yʕt	6. tu ˊdipi
2. po ˊñoi	7. no ˊmčːn
3. so ˊpːn	8. mo ˊñus
4. ha ˊpo ˊñi	9. no ˊnːp
5. yu ˊtsːnuk	10. ṭi ˊˊuv

[172] [205] A half-hitched string with a bead on each loop was a method of bead-stringing exemplified in Pueblo II material from Nevada (vide Cody, Simply Strung). This method may account for the "shingled" beads found with a bear burial in the San Joaquin Valley (Heizer and Hewes, Animal Ceremonialism, 589).

[431 576] [206] Taking small gifts of cigarettes or candy to old Yokuts people presented a problem to the recorder because of their quiet insistence upon a return of some kind; refusal to accept a gift in exchange would be a subtle offense.

[207] Handbook, 498.

[208] P. 375.

276 pare tobacco for his own use or for sale, but
249 usually there were one or two older persons, men or women, who made a business of it.[223] "It was easy work for old folks who wanted to make a little money" (M.L.). M.L. used to go over toward Yokol with her grandparents to gather it.

Tobacco was never planted or cultivated. But when in the early spring an interested person saw a good growth of tobacco, he would return to it a few weeks later and pinch out the tops of the plants "to make the leaves grow big" (ku'u ˊtuna ta ñhi mitaˊm ṭuˊdan nːp taˊptap). When the plants were full grown and the lower leaves about to turn yellow (hiˊam akuˊm ṭada ˊkiˊaš, now perhaps yellow), these leaves were picked off. As others showed a faint change of color, they too were picked. The leaves were washed individually in a basket of cold water, were packed together while still wet, and tied in bundles. They were left in a clean shady spot for about two weeks, during which time they soured and turned dark yellow. Then they were untied and spread out in the sun to dry.

In the meantime the last leaves left on the plants had ripened, and these were picked, put in a pottery jar, covered with water, and boiled for one day. The decoction was then left to stand for a full day in the sun.

276 Now the dried, soured leaves were pounded up in a special hole reserved for the purpose in a bedrock mortar. This process, too, usually took all day. The resulting powder was combined in a large jar with the cooked thick liquid in such proportions that the mixture had a doughlike consistency. It was taken out in fistfuls, shaped in small rough lumps, and laid on a rock to dry. When entirely dried, these lumps were broken up and repulverized in the mortar hole. Once more the powder was combined with the tobacco liquid and shaped into little cakes. This time the cakes were carefully shaped, either into round balls or low, broad cylinders "like a thick pancake." Such cakes were merely called "tobacco" (šogan). When thoroughly dried, they were carefully collected and stored in a buckskin sack. Later on they might be taken about and sold; they were said
● [435] to bring $2.50 to $5.00 each, depending on their size.[224]

Some liquid remained in the pot: only a very small amount of these fine dregs was ever available. This was boiled down, or left to stand in hot sunshine until it had become thick enough to shape. It was worked into small slender cylinders about the size of one's forefinger. This was called pulčiˊna, was very expensive, and had special uses. Often a hole was drilled through one end of the cyl-

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[223] A full account of Tübatulabal tobacco manufacture, with comparative data, is given by E. Voegelin (pp. 36-38).

[224] The price seems high. Neither informant (M.L. or J.P.) could evaluate them in terms of shell beads.

[P. 111 a] Wukchumni

757 cutting. "The chills and fever came right out of the top of the head" (M.P.).

755 If a person met a ghost (tawa´tsa) after dark it might cause the intrusion of such objects as fingernails, hair, or clots of blood. These had to be sucked out from a cut. (See Anecdote 8 below.)

If a woman had an intimate man friend who died, he might come back and have intercourse with her. An orgasm during sleep was attributed to this. But a severe headache was believed to result, which had to be sucked out through the top of the head by a professional shaman.

754 Most illnesses were attributed to evil shamans who were thought to "shoot" the intrusive object in order to be called to treat the case and so receive payment. (See Anecdotes.)

[827] J.B. said all sicknesses with pain were caused by shamans. Pain was called ho´ba (the word also for blood). Shamans shot pains into the lumbar region of woman's backs.

756 When curing, shamans wore the same dress
535 regalia as when dancing: feather headdress,
292 weasel-skin wristlets,[254] down-strand skirt,
237 feather bunches hanging from the wrists, ear plugs, and other ornaments. Not every shaman owned such a complete outfit: the most important item, after the feather hand bunch which after all was an implement of work, was the feather hat. Any man who was going to do something special in a ceremonial way would buy or borrow one of these, whether he was a shaman or not.

755 Cases of slight sickness did not call for singing or dancing. The doctor pressed his patient all over, asked for symptoms from both patient and attending relatives, and also asked about the patient's recent activities in order to explore the possibility of the sick man's having had some weird experience (such as meeting a ghost) to which the illness was attributable. Then he smoked, communed with his helper, and proceeded with whatever treatment he deemed best. A more stubborn case would call for singing and dancing. This was done in the house beside the patient and in the presence of the family. As the shaman danced he repeated aloud what his supernatural advisor was telling him. (But he was not possessed; it was not the helper's voice or words, but his own.) If the doctor "wanted to make a show," he would have the patient removed to the public fire where people assembled to watch. During this performance the shaman might hire a singer
755 to accompany him and a winatum to assist him.
522 It was the privilege of anyone who wished or dared to give a clowning pantomime of the shaman's activities, "but it was usually a

[826]
[435]

[254] These protected the vulnerable seat of supernatural power in the wrists. H.L. said a shaman would pay one hista (about 25 cents) for a weasel (she'et) skin.

173 catch an Indian. The people on the Creek had
648 never seen any white people or Mexicans before;
[609] they were all scared and hid around in the hills. But some were caught, among them B.W.'s father, his brother, and himself A bullet had hit his brother. They went back into their village B.W.'s father was the headman and he asked the white men to leave their guns at home unless they wanted to have fights. The white men said they just wanted to make friends. Then his father called all his people together and told them to go down [where?] to the "white fandango." About twenty or thirty went and were given food, hats, and coats. Then others went down. They had been told to come once a month for presents.

A man [named Dover?] had one hundred and sixty acres of land where he wanted the Indians to be placed. All the headmen, Gashowu, Tachi, everybody, were sent for B.W. went with his father. The government wanted to make schools. Each morning two white men and [native] interpreters told them what was going to take place. Then a white man [Dover?] went over to Kings River to see the Indians there, but he got killed. The Indians called him Ca'wis. The government sent no money at this time. But this was the beginning of all bad things -- sickness and drunkenness -- and all the Indians went.

435 On another occasion B.W. declared that the
648 high price of native basketry was due to the fact that some white land owners charged Indian women for the privilege of coming on their property to get the grasses and roots needed. He said that "over on Kings River" some men charged $2.50 a day for the gathering of basketry materials on their land.

KECHAYI

648 feel the wrists of their partners in the dance.
826 If they had hard wrists, the Mono knew they were Mono also; if the wrists were soft, the dancers were Yokuts. The Eastern Mono conversed with the Yokuts through their linguistic
[192] and cultural kin, the Western Mono people (Yayanchi and Posgisa). When these said the Yokuts were friends, the Eastern Mono left them alone.

648 E.M. recounted the story of a war with
462 Mono people which occurred before she was born.
222

Long ago [before E.M. was born] a number of Yokuts people from the Chukchansi, Kechayi, and Gashowu tribes were camping east of Friant. They had all gone there for acorn-gathering. It was the general practice that the men, immediately after the morning meal, went out to shake down the acorns. Leaving these to be collected by the women, they then went off for the day to hunt or fish. Toward sundown they returned and helped the women crack the nuts.

1: Gayton E-5 (1925-1930) 1948 N529 Yokuts N529
[P. 181 a] Chuckchansi

251 three days. Fish was treated the same way. Any kind of meat could be dried, said J.R., and would keep for two or three months.

222 Grasshoppers, a wingless type, were got in the plain of the valley. They were caught by setting a fire in a circle, driving it inward. When the grass was burned over, the grasshoppers, killed but not cooked, were collected. [252] Taken home, they were roasted on a tray with live coals.

[252] Angleworms were got in winter and cooked in a soapstone dish. A little water was added, [251] "just enough to make a little gravy." Some people dried angleworms to keep for later use, a practice which J.R. and P.R. both decried.

222 Grubs of a small black butterfly[92] were 252 also cooked in a soapstone dish with a little hot water; they were not cooked long. These [251] were usually dried on trays in the sun and stored in sacks for later use.

Yellowjacket grubs were dug from the ground after the live insects had been smoked out. Dried weeds were stuffed in their holes, lighted, and blown upon. The holes were about two inches across, the nests some twelve inches below the surface. A number of holes indicated many nests. The grubs were cooked in ashes, then sifted from the ashes in an open-twined basket.

263 Salt.--Salt was not always available to the Chukchansi. Their supply came from the [439] Paiute (probably Eastern Mono) of Nevada who came over about once a year to trade and even then did not always bring it. J.R. did not know where they obtained it. The salt was paid 263 for either by bead money or by baskets. If the 435 payment was a basket, this receptacle would be slightly larger than the lump of salt for which 439 it was exchanged. The basket, however, was thought to be the more valuable because of its durability: "it holds water, lasts a long time; it may look old but it will still hold water a long time." For a piece of salt say four by six inches, not many beads were paid; roughly, it would be about 50 cents in American money.

263 The salt so obtained was mixed with water, "just enough to stick it together," and put on ashes to heat, left overnight. When taken out it was hard, "just like some kind of rock." When struck, it broke in little pieces. The flavor, however, was changed by the treatment: "it was kind of weak, you know, not like it was before the burning."

263 According to N.W., rock salt was got from 439 the Eastern Mono who lived "the other side of Tuolumne, down Mono Lake way." They brought it from "the other side of Seventy-Seven, Basalt Meadow." They brought crystals about one-half

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[92] These are grubs of a small black butterfly which does not come every year; there were none this year (1938) but they were plentiful in 1936. They come very early in the spring on trees where new leaves are budding. [Possibly a moth? -- A.H.G.]

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29 .
[P. 181b] ChuckChansi

263
439 to three-quarters of an inch in diameter, carrying them in burden baskets. The salt was
263 paid for in baskets or shell money. A quantity of salt about as large as a pine cone would be
435 worth 50 cents in American money, in native
[804] terms, a basket about the same size (as a pine cone) or a kelan of beads (a strand the circumference of the flat hand). The Mono came over several times a year.

263 Rock salt was ground to varying degrees of fineness and eaten with meat, nuts, or seeds, but not with acorns. Rock salt to be eaten with acorns was "burned black" first. A layer of salt was covered with hot ashes, then pounded in an acorn hole and mixed with a certain "grass" that grows in or at the edges of the river. The grass and salt were mashed together then formed into balls about six inches thick. Water was added if needed to make it stick together. The grass was wrapped around the balls, making a thick covering. Several such balls were put in a hole filled with very hot ashes and left all night. In the morning the balls, from which the grass wrapping had burned, were dug out and brushed hard with a soaproot brush. A ball might be struck a blow and the pieces given to various people. Three to five balls would be made at a time, which would last an average family a whole year. [Just how this type of salt was used with acorns was not stated. -- A.H.G.]

258 The salt called 'alit' was derived from
263 salt grass which is covered with a white incrustation when growing. It was gathered by hand, spread to dry on flat rocks, then pounded in a mortar hole. Then it was winnowed from a circular winnowing tray, the grass particles wafting out and the salt grains remaining. The salt was dampened and pressed into balls, but these were not baked. The balls were broken as needed for use. This salt was eaten with clover and sour berries; if it was unobtainable, then rock salt was used.

The Chukchansi "went to the plains to scrape a sort of alkali off the ground," says Kroeber.[93]

Beverages

272 When manzanita berries are nearly ripe,
[423] women specify certain bushes as theirs, said
J.R., and no one else can take the berries from
222 them.[94] When the berries were thoroughly ripe, the ground under a bush was raked clean of all leaves and twigs, until the ground was bare. The woman took a long pole and, standing close to the bush, knocked all the berries to the ground. Then she took a flat short stick to

[93] Handbook, 530.

[94] It is not clear whether a woman claimed the same bushes each year or specified them anew according to the crop promised by various bushes. -- A.H.G.

[P. 218 9] Western Mono NS25

W
Y
291 A sewn leather jacket was denied by S.O., yet other informants said a sort of sleeveless jumper with side seams could be bought from the Eastern Mono. (It is possible S.O. misunderstood my query.)

W Rabbitskin blanket.---The Michahai and Wak-
Y sachi, when on their camping trips to the lower
[237 foothills, caught jack rabbits. Sometimes they
439] bought rabbitskins from Wukchumni, Gawia, and Telamni. They also saved and used the upland rabbitskins for blankets.

W Dance costume.---The shaman's dance skirt,
Y which he wore on all dress occasions, consisted
292 of many 18- to 24-inch pendent strands of ša' string into which chicken-hawk down had been
237 rolled. Each strand was tipped with a bluejay or flicker quill.

The headdress consisted of the usual two parts, the vertical feather bunch (čuha´o, Michahai; čuha´b¹, Waksachi) made of roadrunner quills, and the soft fluffy crown (se´ma, Michahai; sema´b¹, Waksachi) of crow feathers.

W
● Y The skirt was made by either men or women,
292 but the headdress was made only by men. An old
462 man at Kičeyu (Dunlap) named Ko´'o was particularly skilled at making headdresses, which he
● 435 sold at a price somewhat equivalent to $10.00

W Ear and nose plugs.---Everyone, said S.O.,
Y had his or her ears punched. This was done with a fine pointed manzanita stick. The heat-
301 ed point was pressed from in front against the
304 lobe, behind which was pressed a small flat stone. The stick was pushed on into the hole and left until the wound healed. Then a series of increasingly larger sticks were inserted. Cane tubes were sometimes inserted, and the men's quail-feather ear plug of the Yokuts was used. A women's ear plug, also derived from the Yokuts of the plains, consisted of a ring of abalone shell (li´la, Michahai) which fitted the aperture like a plug, and from which dangled short strands of clamshell-disc beads.

Similarly, in the old days, both men and women had the nasal septum pierced. A single humana shell bead was the favorite ornament for this aperture.

Y
W Tattooing.---There were no special practi-
304 tioners of this art, "anybody could do it." The design was pricked in the skin with the point of a fine obsidian blade and charcoal was rubbed in the abrasion. The patterns were stereotyped. Women had vertical lines from lower lip to chin, but these were never used by men. Both sexes used horizontal lines running from the corners of the mouth to the ears, and bandlike lines on the inner wrist. Two old women, Bren and Sugarfoot, were noted for their ambitious decorations which consisted of straight wide lines commencing on the chin and continuing down throat, chest, and breasts.

W
Y S.O. could recall no other kinds of designs.

302 Paint.---Face and body paints were hapa´ka
[192] o čɨk (red), toiye´'i očɨk (white), and mutakei´wɨk očɨk (black, i.e., charcoal) [all teams Michahai.]

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

438 Said Ichow, "When you trade with them people, you got
436 to know how much in their chok. You measure their chok and then you figure how much it is worth beside your chok."

435 In the old days one Wukchumne chok of beads of low value
438 would buy twenty bundles of hupud or ahnup. A half chok of average shell beads would buy twenty bundles. Ichow explained how the half chok was measured: "You double the string
[804] after you measure one chok." Two shell beads of low value would buy one bundle of basketry materials, or one tanned deerskin. Ten average beads would buy one tanned elk skin or two tanned antelope skins.

436 From *Yoimut*, an aged *Chunut*, from *Pahmit*, an aged *Dumna* (Doom'-nah) and from other Yokuts, I learned that both asphaltum and paint of various colors in standard pack were also traded and sold for money throughout Yokuts territory. This standard size is uniformly described and approximates a size midway between that of a tennis ball and a baseball. Their statements were substantiated by archaeological remains in widely separated portions of Yokuts territory.

436 When the Smithsonian Institution expedition of 1937 ex-
172 cavated the old *Tulamni* Yokuts village at the east point of the Buena Vista Hills in western Kern County, a number of balls of asphaltum were recovered. They were almost exactly the size described by my informers. Some appeared to have been wrapped in tules or in rabbit skin strips. This can be appreciated when one takes into consideration the stickiness of asphaltum. I also recovered similar balls of asphaltum in Indian cemeteries at Alamo Solo in southwestern Kings County, and at the Sweet Mound, about four miles southwest of Waukena in western Tulare County.

[201 It is of interest to note here that Wahumchah states that these balls of asphaltum were burned by the Yowlumne to pro-
372] vide the black smoke for sending smoke signals.

At the Menjoulet Rancheria on Los Baños Creek in western Merced County I found two "standard pack" balls of red pigment and one of white, also several crude chunks of the diatomaceous earth from which the white pigment had been prepared. The balls of pigment showed the finger prints of the person who had formed them. In the Broder Mound (west center of Section 31, T18S, R26E, MDB&M) I recovered from disturbed burials one standard ball of black pigment, probably made of burned graphite taken from the old Yokuts diggings

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

Acorn soup was dipped from the basket with the first three fingers and placed in the mouth. Both it and the cake were very nourishing, being rich in oil and starch. A small piece the size of a base-ball is said to contain food value equal to more than an entire loaf of our bread.

To the uninitiated, acorn bread is a tremendous disappointment. To me it tasts flat and chalky, but white persons who persist are said to learn to like it.

SALT FROM SALT GRASS

There being no natural deposit of mineral salt accessible to the Yokuts Indians of the San Joaquin Valley, the obtaining of this important article of diet was a serious problem. Along the east side of the San Joaquin Valley it is quite likely that a portion of the salt used was mineral salt obtained from mountain Indians who had in turn obtained it by trade from the inhabitants of the desert region east of the Sierra, where natural deposits of this mineral were common. We are assured by old Indians that salt obtained in this way was very expensive. Many beads of shell or steatite were demanded for a few handfuls of the crude salt offered.

A large portion of the salt used by the Yokuts tribes in the San Joaquin Valley is still obtained from salt grass. Although the method of obtaining this salt has been observed by white settlers since as long ago as 1850, it is remarkable that there have been available through libraries and newspaper files no detailed accounts of the method of harvesting and refining it.

All salt grass does not bear enough salt to make it useful as a source of that material. Most persons who have walked through some fields of salt grass in the early morning have found it covered with what appeared to be heavy dew, have later had the experience of finding their shoes covered with a heavy incrustation. This is the salt used by the Yokuts.

The salt is exuded from the leaves of the salt grass and adheres to them in small globules smaller than a mustard seed. In the early morning this excretion exists as a small drop of liquid. By noon of a warm day it has become solid and by mid-afternoon is dry and hard and can be removed from the leaves of the grass by threshing.

As the grass itself is not desirable, the problem exists of removing the salt without breaking up the brittle leaves and

7:Powers J-5 (1871-1876) 1877 NS29 Yokuts NS29

ers, four of them caper around like clowns in a circus, chasing each other, chanting, brandishing rattlesnakes in their hands, twining them about their arms, and suffering them to bite their hands. It is supposed that they have either plucked their fangs, or have not allowed them to drink any water for a number of days beforehand, which is said to render them harmless. But the credulous savages believe them invulnerable, and they eagerly press forward with their offerings, in return for which the wizards give them complete immunity from snake-bites for the space of a year. The younger Indians, somewhat indoctrinated in American ideas, have become sadly skeptical and heretical in regard of these dances, which they contemptuously term "skunk meetings", to the great scandal of their pious elders.

Formerly the step danced by the men on most occasions might not inappropriately be called the piston-rod dance, as they seemed intent on driving their legs alternately into the earth. Of late they have adopted from the Mono the grand walk-round, in a single circle, men and women together, and with an entirely different and less violent step.

Although they have a form of war-dance, and the Chukchansi warred a great deal with the Pohonichi of old, as a race they are peaceful, and they take no scalps. But of late years, under the aggravation of aggressions by white men, they have adopted from the warlike Mono the red paint (instead of black), which has so terrible a significance in a savage dance, and the appearance of which always makes the frontiersmen uneasy. From them, also, they have learned to talk of war, to bluster, to threaten darkly, to hold secret conclaves far within the depths of the mountains, from which the whites were rigidly excluded. But nothing has come of them. These things are foreign to the peaceful Yokuts, and the Monos, though they are supposed to have attempted it many times, have never succeeded in screwing their neighbors' courage up to the sticking-point of joining them in a war on the whites.

Nowadays $20 or $30 in gold is paid for a wife, but this only for a virgin. For a widow or a maid suspected of unchastity no man will pay anything or make any presents; and it is due to the Yokuts to state that a pioneer who has lived among them twenty-one years affirms that before the arrival of the Americans they were comparatively virtuous. Dr. E. B. Bate-